

CLAIMS

What is claimed:

1 1. A method for routing network traffic, comprising:
2 receiving the network traffic;
3 determining a destination for the network traffic;
4 obtaining geographic information on one of a source or the destination associated
5 with the network traffic from a map of the network, the map being produced as a result of:
6 determining a route through the network which includes one of the destination
7 or source;
8 deriving a geographic location of any intermediate hosts contained within the
9 route through the network;
10 analyzing the route and the geographic locations of any intermediate hosts;
11 determining the geographic location of the source or destination; and
12 storing the geographic location in the map; and
13 directing the network traffic to a desired destination based on the geographic location
14 of the source or destination.

1 2. The method as set forth in claim 1, wherein receiving the network traffic
2 comprises receiving a domain name service inquiry.

1 3. The method as set forth in claim 1, wherein the network traffic comprises a
2 domain name service inquiry and wherein directing the network traffic comprises resolving
3 the domain service inquiry by selecting the desired destination based on the geographic
4 location from a plurality of destinations.

1 4. The method as set forth in claim 1, wherein receiving the network traffic
2 comprises receiving a request at a host server.

1 5. The method as set forth in claim 1, wherein the network traffic comprises a
2 request, the desired destination comprises a desired server, and wherein directing the
3 network traffic comprises directing the request to the desired server based on the geographic
4 location.

1 6. The method as set forth in claim 1, wherein directing the network traffic to the
2 desired destination comprises selecting a route with a shortest distance to the desired
3 destination.

1 7. The method as set forth in claim 1, wherein directing the network traffic to the
2 desired destination comprises selecting a route to the desired destination having the shortest
3 latency time.

1 8. The method as set forth in claim 1, wherein directing the network traffic to the

2 desired destination comprises selecting a route having the most available bandwidth.

1 9. The method as set forth in claim 1, wherein directing the network traffic to the
2 desired destination comprises selecting the desired destination based on its load.

1 10. The method as set forth in claim 1, wherein the geographic location comprises
2 the geographic location of the source and directing the network traffic to the desired
3 destination comprises selecting the desired destination because it has content associated with
4 the geographic location.

1 11. The method as set forth in claim 1, wherein directing the network traffic to the
2 desired destination comprises selecting the desired destination based on a connection speed
3 associated with the source.

1 12. The method as set forth in claim 1, wherein directing the network traffic to the
2 desired destination comprises selecting the desired destination bandwidth available at the
3 desired destination.

1 13. The method as set forth in claim 1, wherein directing the network traffic to the
2 desired destination comprises selecting the desired destination based on a connection speed
3 associated with the source and bandwidth available at the desired destination.

1 14. The method as set forth in claim 1, wherein directing the network traffic
2 comprises selecting a route based on interconnection speeds within the network.

1 15. The method as set forth in claim 1, further comprising analyzing the network.

1 16. The method as set forth in claim 15, wherein analyzing comprises analyzing
2 interconnections between nodes in the network.

1 17. The method as set forth in claim 15, wherein analyzing comprises analyzing
2 nodes within the network.

1 18. The method as set forth in claim 15, wherein analyzing comprises modeling
2 behavior of the network.

1 19. The method as set forth in claim 18, wherein modeling comprises
2 approximating the behavior at nodes.

1 20. The method as set forth in claim 18, wherein modeling comprises simplifying
2 the map of the network by combining nodes in traffic routes.

1 21. The method as set forth in claim 1, wherein obtaining the geographic
2 information comprises generating the map of the network.

1 22. The method as set forth in claim 1, wherein obtaining the geographic
2 information comprises querying a system for the geographic information and receiving a
3 response from the system with the geographic information.

1 23. The method as set forth in claim 1, wherein the network comprises the Internet
2 and the network traffic comprises packets.

1 24. A method for routing network traffic, comprising:
2 receiving the network traffic;
3 determining a destination for the network traffic;
4 obtaining intelligence on the network from a map of the network, the map being
5 produced as a result of:
6 determining at least one route through the network which includes the
7 destination;
8 identifying any intermediate hosts contained within the route between a source
9 of the network traffic and the destination;
10 analyzing interconnections between nodes in the network; and
11 storing results of the analyzing in the map; and
12 directing the network traffic to a desired destination based on the intelligence on the
13 network stored in the map.

1 25. The method as set forth in claim 24, wherein the intelligence includes a

1 geographic location of the destination.

1 26. The method as set forth in claim 24, wherein intelligence includes a
2 geographic location of the source.

1 27. The method as set forth in claim 24 wherein intelligence includes a connection
2 speed associated with the source.

1 28 The method as set forth in claim 24 wherein intelligence includes bandwidth
2 available at the destination.

1 29 The method as set forth in claim 24 wherein intelligence includes bandwidth
2 available at the destination and a connection speed associated with the source.

1 30 The method as set forth in claim 24 wherein the intelligence includes a latency
2 time associated with the destination.

1 31. The method as set forth in claim 24, wherein the intelligence includes
2 information on loads at different destinations.

1